PORTLAND PUDGY

Exposure Canopy

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PORTLAND PUDGY EXPOSURE CANOPY

Proactive and self-contained. The exposure canopy converts the Portland Pudgy to a self-rescue lifeboat that protects you from heavy weather and exposure. The Portland Pudgy proactive lifeboat system is a self-contained unit. All of the safety equipment you plan to use, including the exposure canopy stored in its dry bags (page 29), the para-anchor (page 27), the sail kit (page 22), as well as the ditch bag, electrical devices, and other equipment (page 32) can be stowed in the interior hull storage compartments, via the hatches, or neatly under seats. The exposure canopy and sea anchor can be pre-set for emergency use. The exposure canopy inflates in about 17 seconds after the lanyard is pulled. It uses two inflation chambers, each with a CO2 cylinder and a high-quality valve. (The valves are approved by the Navy for their one-man life raft.) (See page 32 for information on optional safety equipment.)

Unsinkable. The basic Portland Pudgy is unsinkable because of closed cell foam under the floor, and in a USCG test, it took 1855 pounds of weight to submerge the boat to its gunwales. The inflated exposure canopy provides an additional 400 pounds of buoyancy. The inflated exposure canopy makes the Portland Pudgy lifeboat self-righting when empty.

Comfortable. The Pudgy has 16.1 square feet of floor space. The USCG requires 16 square feet for a four person life raft. The Portland Pudgy's middle seat is removable, and the flat floor is 6 feet two inches long, designed so that two people can comfortably stretch out to sleep. Unlike a life raft, the Pudgy's floor can be kept dry. It has channels for water leading to a drain with a plug. (The Pudgy is self-draining when carrying less than 30 lb.) In addition, the floor is insulated; because of the double wall thickness and the foam under the floor, the floor is not as cold as in most life rafts.

GENERAL SAFETY INFORMATION

It is the captain's responsibility to examine and test and be familiar with everything he or she plans to use in an emergency. Read this manual carefully and practice using the equipment. Before an emergency arises, install your exposure canopy and manually inflate it to thoroughly understand how it works. Tether all important equipment to the boat.

IMPORTANT: Do not abandon ship until all attempts to control damage have been tried and the boat is definitely about to sink or be consumed by fire. **Send out distress signals before abandoning ship.** Common thinking is that you should stay in one place and wait to be rescued, and that it is safest to stay with your mother vessel if at all possible. If separated from mother boat, you do not have an EPIRB, or if you are in waters where rescue is unlikely, then it is the captain's call whether to remain relatively stationary or to be pro-active with your Portland Pudgy and sail toward safety.

Abandon Ship Plan

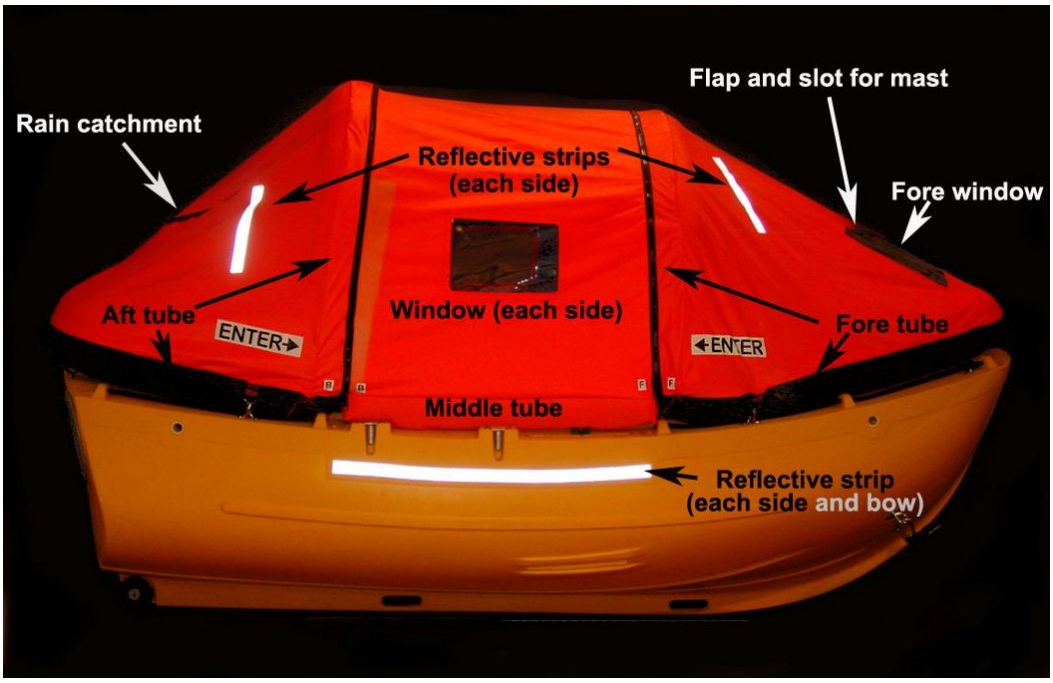
Make a clear abandon ship plan before the need to abandon ship arises. It should be in writing, and known to all crew and passengers. It should specify procedures for deploying the Pudgy, including:

- putting the Pudgy in the water,
- boarding the Pudgy,
- keeping the Pudgy connected to the vessel being abandoned while passengers board, and severing that connection (if necessary) once everyone is aboard the Pudgy or tethered to it, and
- use of the exposure canopy and sea anchor if available.

Have an abandon ship drill: Practice boarding the Pudgy from boat and climbing into Pudgy from water.

PORTLAND PUDGY EXPOSURE CANOPY COMPONENTS

The photograph at below shows the exposure canopy components visible from the exterior. You must provide your own ditchbag and any special safety equipment (see page 32). Portland Pudgy offers a sea anchor, boarding ladder/fender, and sail kit as well (see respective modules in this *User's Manual*).



Fore and aft sections: The fore and aft sections are each constructed of an inflatable six-inch diameter tube. One tube curves around the bow of the boat and one around the stern. Each tube curves upward toward the center of the boat, forming an arch. Each section is fastened onto the boat using clips and web belts that clip and fasten onto the exposure canopy pad-eyes and belt loops along the gunwale.

Exposure canopy with middle section partially unzipped

Note: As of 2011, the canopy tubes are of gas-tight material without inner tubes. Pre 2011 canopies are of coated nylon and contain an inner tube of polyurethane.

These tubes support a fabric canopy of neoprene-coated nylon. The outside of the canopy is emergency orange for high visibility, and the inside is blue (the color recommended by the USCG to reduce seasickness).

Both the fore and aft tubes can be inflated by CO_2 cylinders supplied with the canopy, manually (using the pump provided), or orally using a manual pump adaptor (not supplied).

The fore section (labeled "**front**") is fastened to the bow gunwale, and the aft section (labeled "**back**") is fastened to the transom gunwale.

Both the fore and aft tubes can hinge up at the bow and stern to allow access to the bridle or para-anchor (fore section), or the tiller or rear access hatch (aft section).

There are two reflective strips on the fore and aft sections, as well as "**ENTER**" labels indicating the opening between the fore and aft sections.

The fore section's vinyl window has a hole with a protective flap at the top, so you can insert the mast through the hole and seat it in the mast cup in the floor of the boat.

The outside of the aft section has a rainwater catchment device ("V" shaped piping with an attached tube and a twist open/twist closed valve that opens inside the boat).

CAUTION: As of 2011, the canopy tubes are of gas-tight material without inner tubes. **Pre 2011 canopies have inner tubes and small zippers** on the support tubes for replacing the inner tubes. **DO NOT** unzip them. You could easily pinch and perforate the inner tube.

Fore Section, showing window, and flap for mast

Aft Section, showing rainwater catchment

Middle section: The middle section of the canopy zips onto the fore and aft sections, which support it The zippers are double-pull, and can be zipped open or closed from either direction. You can only completely unzip the middle section (to remove it) from one end of the zipper. The other end has a stop to prevent it coming off completely.

The middle section has an orally-inflated 6"inch diameter tube at the bottom of either side. These tubes keep middle section of canopy snug at bottom. There is a 2"x4" Velcro patch on either end of these tubes. These patches secure the ends of the middle tubes to the elbows of the fore and aft tubes, which also have Velcro patches. When fore, aft, and middle sections of the 6" diameter tubing are connected, they form a continuous enclosure around the cockpit of the boat.

The middle section has two windows (one on each side).

Note: When pre-setting canopy, the two middle tubes should be kept inflated.

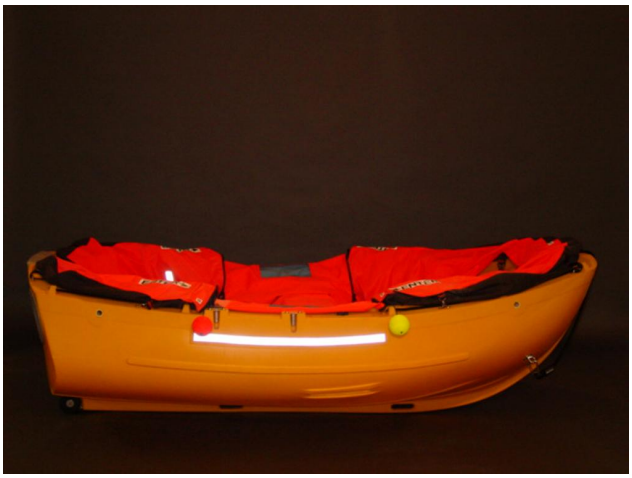
View of middle section, rolled down.

Note that the zippers are double-pull, so you can also unzip them from the bottom to the top.

PRE-SETTING THE EXPOSURE CANOPY

This section describes pre-setting the exposure canopy so that it is already in place if an emergency should occur.

Note: You can also set up the exposure canopy when you are at sea in the Pudgy. Follow the steps outlined in this section, and when you are ready, inflate the support tubes following the instructions beginning on page 8.



WARNING: Do not have the canopy pre-set in severe winds **unless you cover it securely with the boat cover.** The fabric could tear or the tubes accidentally inflated. If you anticipate severe weather only pre-set with the cover in place

Note: You can row the Pudgy with the exposure canopy pre-set. You simply remove the middle section to allow access to seats and oarlocks, as in the photo below. See instructions on page 14.

Instructions for Presetting the Exposure Canopy

You can preset the exposure canopy so that is ready for use at any time. The following are the basic steps in presetting the canopy. If you are setting up the canopy while aboard the Pudgy, omit Step E.

Step A. Secure the canopy fore and aft sections to the Pudgy (see page 9).

Step B. Secure the fore and aft CO_2 cylinders, if not already installed (see page 10).

Step C. Secure the middle section (see page 12).

Step D. Attach the two pull-cord clips with three-inch ball to each inflation valve (see page 13).

Step E. Cover the canopy and Pudgy with a boat cover (see page 13). (Only if pre-setting.)

These steps are explained below.

Exposure canopy in place and protected with boat cover

Step A. Secure the Canopy Fore and Aft Sections to the Pudgy

1. **Fore section clips:** On each side of the aft part of the fore section there are two stainless steel clips (four clips, total) on 1" wide webbing. (These clips can only be secured when tube is deflated.) Secure each clip to corresponding pad eye (located about 9" in front of the leeboard slot) on the port and starboard gunwales.

   Aft section clips: Procedure same as for fore section. The clips are attached to the corresponding pad-eyes on the gunwale a few inches behind the leeboard slot.)

2. **Webbing:** On the forward part of the **fore section**, there are two pieces of 1" wide webbing. Pass each of these pieces of webbing through the corresponding belt-loop pad eyes on either side of the bow gunwale and through the cam-buckle (see photo at right). Pull until it stops. (The webbing should form a loop around the tube that's about 6" in diameter. **Aft section** webbing is on stern (as shown at right)

Note: The purpose of belt-loop attachment system is to let you loosen the webbing in the cam-buckle so the canopy can hinge open **for access to the bridle and/or the sea anchor at the bow**, and the **rear access hatch and rudder at the stern**.

Forward & Aft Webbing Attachment:

Forward

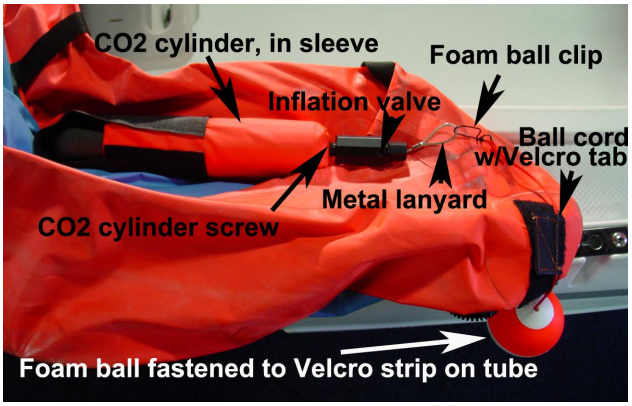
Aft

Step B. Secure the Fore and Aft CO_2 Cylinders to the Support Tubes

If the CO_2 cylinders are not already in place, use the following procedure for the fore and aft sections of the canopy. They should be kept in place for instant deployment.

First, make sure the inflation valve is "armed," i.e. that the metal lanyard is in the valve. DO NOT PULL (see **CAUTION** at right.) Normally, you do not have to arm the valve: it should be armed when it comes from the factory. If the wire lanyard is not attached, the valve is not armed and cannot be discharged. **If lanyard is NOT attached, it can be put in place as follows.** With CO2 cylinder *detached* from inflation valve:

1. Remove the cap from inflation valve. Be careful not to lose the spring (which will fall out).
2. Carefully, with soft object (such as a pencil eraser) push in dagger plunger (where the CO_2 cylinder screw enters inflation valve).
3. Push small ball of metal lanyard into hole inside the inflation valve (under the cap), so that the ball is fully seated.



4. Replace spring and screw the cap back on valve.

   The lanyard is now secured in place.

CAUTION: DO NOT PULL THE LANYARD UNLESS USING IT TO INFLATE CYLINDER.

Instructions for securing the CO_2 cylinders in place on the exposure canopy continue on the following page.

Step B, Secure the Fore and Aft CO_2 Cylinders, continued.

The photo on the preceding page shows all of the parts described below.

1. Insert the CO_2 cylinder into the sleeve near the "elbow" of the support tube. Insert it screw end (nipple end) first, so that the screw end protrudes through the hole at the end of the sleeve.
2. Smear a small amount of petroleum jelly around the threads of the cylinder's screw end.
3. Screw the cylinder into the CO_2 inflation valve (holding the valve with care to avoid twisting the fabric of the support tube). Make sure you have screwed the cylinder into the valve all the way. It should be a snug, hand-tightened fit.
4. Secure the Velcro strap at the base of the sleeve to hold the cylinder in place.

CAUTION: To prevent accidental inflation, always keep the metal lanyard on the inflation valve disconnected from the pull-cord with large three-inch ball when removing the canopy for storage, when storing the canopy, or when moving the Pudgy around on deck. This means that, in presetting the canopy, you should not connect the pull-cord with large ball to the metal lanyard on the valve until you have:

- secured the fore and aft sections to the Pudgy (see page 9),
- secured the fore and aft CO_2 cylinders (see page 10), **and**
- secured the middle section of the canopy (see page 12).

Also see *Step D. Attach Pull-Cord with Three-Inch Ball and Velcro Tag to Lanyard of CO2 Inflation Valve* on page 13, and *Inflating the Tubes* on page 15, for more information.

Step C. Secure the Middle Section

1. Identify the fore and aft edges of the middle section. To do this, match up the labels on the middle section and on the fore and aft sections—Front to Front (**F** to **F**), and Back to Back (**B** to **B**). The forward edge is shorter and curves inward. See photo at right.

2. Zip the middle section to the fore and aft sections of the canopy. (The zippers are double-pull, two-way.)

3. Once the middle section is zipped in place, unzip the bottom part of the middle section about two feet on both sides, so that only about three feet at the top of the middle section is closed. See photo at right. This will allow easier access into the Pudgy from your boat or from the water.

Note: With preinstalled fore and aft sections in place, pre-inflate the two middle section tubes, tuck them down in the boat, and cover the boat with the boat cover.

Step D. Attach Pull-Cord with Three-Inch Ball and Velcro Tag to Lanyard of CO_2 Inflation Valve

When you have finished steps A-D, and the Pudgy is set where you intend to carry it (in other words, where there is no danger of accidental inflation), you can clip the pull-cord with large three-inch ball onto the metal lanyard on each inflation valve.

Secure the 1"x2" Velcro tag of the ball's pull-cord to the Velcro near the elbow (base) of the support tube. This will keep it secured, to prevent accidental inflation.

See the photo on page 10.

Step E. Cover the Canopy and Pudgy with Boat Cover

When pre-setting the canopy, cover the Pudgy with the boat cover. Otherwise, the canopy will blow around and could be accidentally inflated.

Fit the cover over the gunwales, run the two webbing straps underneath the boat, fasten the cam-buckles, and pull snugly the buckled strap in the stern.

ROWING THE PORTLAND PUDGY WITH CANOPY PRESET

You can row the Pudgy with the exposure canopy preset.

Note: First detach the 3" ball cord from each inflation valve lanyard, to prevent accidental inflation.

1. Remove the middle canopy section.
2. Gather the fore and aft sections around the gunwales.
3. Secure the fore section to the forward grablines, using the two forward web belts.
4. Secure the aft section to the aft grablines, using the two aft web belts.

Exposure canopy preset to allow rowing

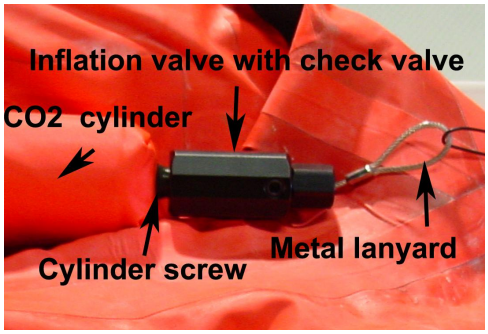
INFLATING THE TUBES

The following instructions explain first how to inflate and deflate the fore and aft tubes, and then the middle section tubes.

Inflating the Fore and Aft Sections

The fore and aft sections each has three valve systems: check valve, inflation valve, and combination pressure release/top-off valve. These are explained below.

Inflation valve and check valve. Built into one "elbow" of each tube (usually starboard), near the CO_2 cylinder sleeve, there is a valve system consisting of an *inflation valve* mounted on top of a *check valve*. The **inflation valve connects to the CO_2 cylinder**, and should have a metal lanyard on the side. When canopy is completely preset, a pull-cord with three-inch ball is clipped to this metal lanyard. When the pull-cord is yanked, the valve is fired, and the CO_2 is released. The **check valve prevents deflation:** when the inflation valve and/or the empty CO_2 cylinder is removed, the check valve closes up automatically. See preceding instructions (*Step B. Secure the Fore and Aft CO2 Cylinders to the Support Tubes*, p. 10, and *Step D. Attach Pull-Cord with Three-Inch Ball and Velcro Tag to Lanyard of CO2 Inflation Valve, p.* 13).

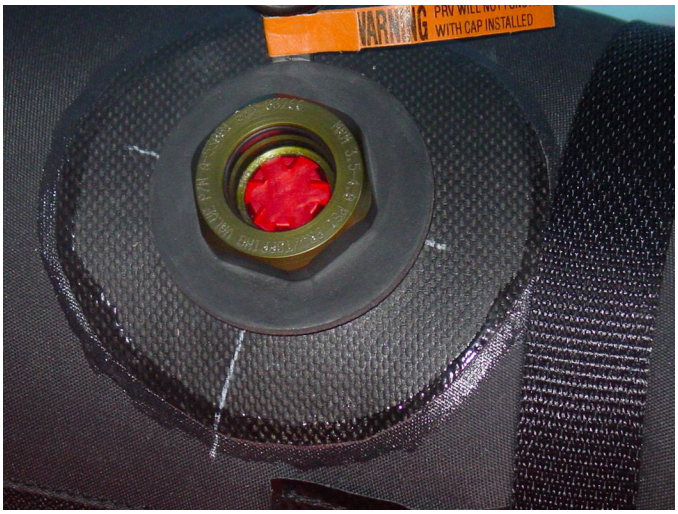


Inflation valve connected to CO_2 cylinder

Note: When a support tube has been inflated with a CO_2 cylinder, you can remove cylinder and discard. It is not reusable. The CO_2 inflation valve can be re-armed. Save lanyard for re-use with new cylinder.

Combination Pressure Release/Top-off Valve. The valve on the port side of each support tube is a combination pressure release and top-off valve. This valve is designed to release excess pressure. You can also use this valve to manually top off the support tube with the supplied bellows pump, or to completely inflate the tube manually. See instructions below for inflating with CO_2 cylinders or manually.

CAUTION: If this valve came with a rubber cap, do not secure the cap on this valve prior to inflation with the CO_2 cylinder. In hot weather, this could cause the tube to burst.



Pressure relief and top-off valve

Inflating with CO2 Cylinders

Yank the pull-cord with the large three-inch ball connected to each support tube's CO_2 inflation valve. This fires the CO_2 inflation valve. The metal lanyard detaches completely from the valve. (The tubes will fill and the canopy will erect in about 17 seconds.)

Note: The volume of the CO_2 gas will vary depending on the outside temperature. If the temperature is hot, the gas will expand and will take up more room. Some of it may have to escape via the pressure release valve. If the temperature is very cold, the support tube may not fill completely, and it will need to be "topped off" manually with the hand pump supplied.

Inflating Manually

The manual bellows pump is connected by a nylon lanyard to a manual pump adapter.

1. Screw the pump adapter onto the pump (if it's not already screwed on).
2. Press the manual pump adapter into the top-off/pressure release valve on the port side (on the opposite side from the CO_2 inflation valve). **You may have to hold the adapter in place while pumping.** An adaptor tube can be ordered from Portland Pudgy for orally inflating the tubes.
3. Pump until the tube is tautly inflated.
4. Remove the pump.

Note: It would be wise to tether the pump to the boat. You do not want to lose it.

Deflating Fore and Aft Tubes

To reduce pressure or to deflate the tube, do the following.

With your finger or blunt, non-metal probe, press in on the red button in the center of the pressure release/top-off valve (see page 17 and following) and gently squeeze the tube to speed the release of gas. Do not use a hard or sharp object. You can also use the pump adaptor by itself to relieve pressure.

Note: To repack the fore and aft sections, you need to get all the gas out, and this takes patience.

CAUTION: Keep all valves clean. Make sure no grit gets in. Rinse with fresh water if necessary, and let dry.

Inflating the Middle Section Tubes

The middle section tubes are inflated orally through the small red tubes. Once inflated, Velcro patches let you fasten the ends of these tubes to the elbows of the fore and aft sections. Make sure the Velcro is well-connected.

Deflating the Middle Section Tubes

The middle tubes can be deflated by pushing in on the black valve at the end of the red tube. You can use the valve cap or your finger for this. Do not use a sharp object. You must remove all the gas in order to repack the middle section.

DEPLOYING THE PUDGY WITH EXPOSURE CANOPY

When you carry the Pudgy on deck, we recommend that you **equip your lifelines with pelican clips**, to ease deployment of the Pudgy. When you need to deploy the Pudgy from the mother boat with the exposure canopy preset, it is probably best to inflate the canopy once the Pudgy is in the water, free of rigging, etc. You will have to make that decision.

To deploy the Pudgy with the exposure canopy:

1. Remove the boat cover by squeezing the two cam-buckles and pulling off the cover, or if necessary in an emergency, cut the straps that pass under the Pudgy, and throw off the cover.
2. Put the Pudgy into the water from davits or deck.
3. When free of all obstructions, yank the pull-cord with large three-inch ball on both the fore and aft sections of the canopy. This will pull off the metal lanyard and fire the CO_2 inflation valve. The canopy will inflate in about 17 seconds.
4. Enter Pudgy. This is easiest with canopy already inflated, but you can enter the Pudgy and tether yourself to it before inflating the exposure canopy (being careful to stay clear of the canopy tubes and fabric cover). It is always better to enter the Pudgy from the deck of the mother boat, than from the water. See *Basic Boat* module for more about boarding the Pudgy from the water.

Pudgy with inflated canopy

5. In heavy seas, deploy para-anchor immediately. You can loosen the webbing in the bow and lift the tube in order to do this. In heavy wind and waves, this must be done with great caution. (See the *Para-Anchor* module of the *User's Manual*.)
6. Tether yourself and passengers to strong attachment points in the Pudgy (optimally using safety harnesses and safety harness/lifting eyes, otherwise, use line fastened through through-holes, or to grab-lines or front or rear seats; do not use middle seat for attachment points).
7. Orally inflate the tubes at the bottom of each side of the middle section and tuck it up on the gunwale between the fore and aft sections. Velcro will hold it in place. (These tubes should be pre-inflated if the canopy is pre-set using the boat cover.)
8. Zip down the middle section.

Note: Tether. It is essential to keep the Pudgy tethered to the mother boat until all personnel are aboard, and normally to remain tethered, unless mother boat is sinking, in danger of explosion, or presents some other extreme danger to personnel. The many variables in any survival situation leave this decision to the captain. Always keep a knife on hand to sever the tether between the Portland Pudgy and the mother boat. **(Tether not supplied. You must supply your own.)**

USING THE SAIL KIT WITH THE EXPOSURE CANOPY

CAUTION: Use good judgment. Set up the sail kit and use it **only when it is safe to do so**…NOT in heavy weather. Strike the sail kit when weather starts to build.

When sailing with exposure canopy in place, **keep mast in its fully-extended position, and reef sail up** so that it is above exposure canopy, as in photo at right.

When sailing the Pudgy with the exposure canopy in place, you must have the **middle section zipped all the way down to one side** (see photo at right). This allows room for the mainsheet to move back and forth in the slot between the fore and aft sections, so you can sail from either tack.

Sail kit in place with exposure canopy. Note reefed sail and open middle section of canopy.

Location of Sail Kit Items Stowed in Boat

The Pudgy is self-contained, and the sail kit can be stowed neatly in the boat as follows:

- Rudder and *standard* leeboards bungee'd under stern seat.
- *Performance* leeboards fastened with straps under middle seat.
- Tiller, and sail kit storage bag containing mast, gaff, boom, sail, rigging: inside hull, accessible via rear hatch.

Setting up the Sail Kit with Exposure Canopy in Place

1. From inside the boat, loosen the webbing at the aft section of the canopy (see photo at right). This will allow you to first remove the sail kit and tiller from the rear access hatch (step 2), then to install the rudder and tiller (step 6) and the traveler (step 7).
2. Open the rear hatch and take the tiller from hull storage.
   Then take the sail kit storage bag from hull storage. (The sail kit should have been stowed with the opening of the storage bag toward the bow.)
   Open the interior starboard hatch to help ease the sail kit out.
   From the interior hatch, hold onto the long cord of the bag as you gently remove the bag from the rear hatch. Keep hold of the cord, once you have removed the bag from the hatch. The storage bag assembly will float for several minutes.

3. Replace hatches immediately.
4. Inside the boat, fasten the rudder and tiller together. Note that if you drop the rudder into the water without the tiller attached, it will sink. It is also wise to tether the rudder/tiller assembly to the boat before installing it. (See instructions in *Sail Kit* module.)
5. Place the leeboards in the leeboard slots. (First be sure you are in deep enough water.) (See instructions in *Sail Kit* module.)
6. Lifting the back of the aft tube once again, install the rudder/tiller assembly in place. Make sure wire clip is installed over top pintle. See *Sail Kit* module.
7. Install traveler with loose block of mainsheet on transom. See *Sail Kit* module.
8. Tighten down aft webbing. The traveler with loose block will be on the outside of the aft tube. Photo at right shows traveler and rudder/tiller in place after step 9 is completed.
9. Inside the boat, with the middle section zipped open, take the sail kit components out of the storage bag, and assemble them on the boat..
   Step 9 is continued on the following page.

9. (Continued) For detailed information on all of the following steps, see the *Sail Kit* module.
    a. Insert gaff into top of mast.
    b. Extend mast to full height (making sure loops of sail are on in place on the mast).
    c. Insert mast through the hole above the window in the fore section of canopy (see photo at right), then through the center hole in the bow seat and then seat it into mast step. Note that the mast assembly is not held securely until the downhaul is tied down (see step 9-i, below).
    d. Extend boom to full length. (Make sure the cords of middle block are in front of the raised push button.)
    e. Belt the tack and the clew to the boom.
    f. Make sure the outhaul at the clew is secured to the jamb cleat on the boom.
    g. Snap yoke of boom to mast
    h. Slide boom with attached sail up to reefing position. Tie boom in position with reef lines (supplied by owner).

i. From above the fore section of the canopy, take the downhaul at its full length and feed it down through the hole for the mast. From inside the forward section of canopy, pull the downhaul line down snugly, and tie it either to the forward seat or underneath the seat and around mast. This will hold the entire sail assembly in place in the boat.

SETTING PARA-ANCHOR FOR USE WITH CANOPY

The parachute sea anchor (para-anchor) is an essential piece of equipment for survival at sea. It helps prevent capsize by keeping the Pudgy headed into the wind and waves.

In the *Para-Anchor* module, see the section on using the exposure canopy with the exposure canopy in place.

It is best if the para-anchor is pre-attached to the bridle and fastened under the front seat where it can be deployed rapidly once the Pudgy is in the water. In heavy seas and wind, the para-anchor should be deployed as quickly as possible.

Para-anchor stowed under bow seat.

RIGHTING PUDGY WITH INFLATED CANOPY IN PLACE

The Pudgy will not sink and you will have a lot of space and air under the boat. When the Pudgy is capsized, there is a large air pocket in the inverted cockpit, and the inflated canopy makes for an even larger air pocket, sufficient for four people. Stay calm.

The inflated canopy will add about 400 pounds of additional buoyancy. When empty, the Pudgy wants to right itself when capsized. When it rights, almost all the water will drain out. Any water trapped in the canopy should drain out through the slots at the "elbows" of the canopy as the boat rights. Try not to bear down with your full weight on the canopy if inverted. It is rugged, but can tear.

IMPORTANT: Always stay tethered to the Pudgy.

With the exposure canopy deployed and no personnel aboard, the Pudgy should right itself when capsized. If it does not right itself (not enough pressure in tube), and you are in the water, pull down on the grooves on bottom of boat, or on handholds in keel, and it will right easily.

Righting with One or More Passengers Aboard

First try to allow wave action to right the boat. If it doesn't, passengers will need to shift their weight, to let the boat right. This involves some bumping and jostling, so it may be necessary to remove the middle seat. Make sure all access hatches are closed. Keep checking: a bump from shoulder or elbow could loosen them. If there are three or more people in the Pudgy, and neither wave action nor shifting weight rights the boat, one person may have to exit the boat (always staying tethered to it), and pull on the handholds in the keel to right the boat (with the help of passengers shifting their weight).

One or two people should be able to right the Pudgy from inside by shifting their weight.

STOWING THE EXPOSURE CANOPY

Each section of the canopy has its own dry bag.

1. **IMPORTANT:** If the automatic inflation valves are armed, remove the clip of the pull-cord with large three-inch ball from each metal lanyard. Keep the Velcro tag of the pull-cord attached to the canopy elbow (see photo).
2. Once tubes are deflated, you need to get *all* the gas out. (See pages 18 and 19.) Once the tubes are completely deflated, and each canopy section is clean and dry, roll up each section up as small as possible and put it in its dry bag. See photos at right and on next page.
3. Dust all sections of the canopy thoroughly with talc before folding.

When rolling fore and aft sections, ensure CO_2 cylinder is positioned in the roll lengthwise, so the bundle will fit into stuff sack and through access hatch. The fore and aft sections should be rolled in a cylinder shape about 28" long and about 5" in diameter. See photos, next page.

Note: Dry bags will be stowed through the port access hatch in the rear of the cockpit. (NOT the exterior transom hatch.)

Fore section, tubes deflated

Fore section, first fold

CAUTION: If you have an electrical system, be very careful not to jam the canopy section in its dry bag against the electrical system components inside the walls of the Pudgy.

Check to make sure there are no sharp screw points or other sharp objects in your storage compartments. If there are sharp screws, cap them with a short piece of plastic tubing or nylon acorn nuts so that the point is covered.

CAUTION: IMPORTANT. If you have a pre-2011 exposure canopy, DO NOT unzip the zippers of the support tubes. In doing so, it is very easy to pinch and perforate the polyurethane inner tube inside. These zippers are to be used ONLY for replacing the polyurethane inner tubes. Exposure canopy support tubes after 2010 are of gas-tight material without inner tubes.

Fore section, third fold, next to dry bag

Fore section, rolled up and ready to put in dry bag

CANOPY MAINTENANCE

It is crucial that you check all your safety equipment regularly. The following points are important for proper maintenance of your exposure canopy.

- Check exposure canopy valves for corrosion and replace if necessary.
- Check your exposure canopy inflation system at least once a year by inflating the tubes manually or by using CO_2 cylinders. Either method is effective, but of course using the CO_2 cylinders is faster. You can order new CO_2 cylinders from Portland Pudgy, Inc. Note that CO_2cylinders can only be used once. However, at less than $100 (as of 2010) for two replacement cylinders, they are inexpensive compared to the yearly repacking charges for life rafts.
- The CO_2 cylinders have a shelf life of seven years.
- Rinse the canopy thoroughly with fresh water, if it was exposed to salt water.
- Do not store the canopy wet. Allow it to dry thoroughly before storing it in the dry stuff sacks.
- Before storing, check for any mildew or mold. (There should be none if the canopy has been stored and kept dry.) If there is mold or mildew, clean with a mold/mildew remover, rinse thoroughly with fresh water, and let dry completely.
- Dust well with talc before folding up for storage.
- Be very careful to avoid puncturing or tearing the canopy when you store it, whether in the side walls of the Pudgy, or anywhere else.

EMERGENCY SUPPLIES TO BE PROVIDED BY OWNER

There are several pieces of safety equipment that must be supplied by the owner. You can store all of the items listed below within the side walls of the Portland Pudgy, through the access hatches. These items are:

- **Ditch bag** containing provisions, medications and first aid supplies, documents, fishing gear, weather protection, knife, signal mirror, water maker, and so on**. Portland Pudgy, Inc. agrees with the author of the website, "Equipped to Survive," who emphasizes that it's the captain's responsibility to assemble his or her own ditch bag according to his or her "own priorities, capabilities, and resources."** Please research this carefully and put together a water-tight ditch bag to stow in the interior of the side walls (forward starboard hatch is best). There is room in side walls of boat for more than one ditch bag.

  See "Equipped to Survive" website at http://www.equipped.com/abndonship.htm for detailed information about ditch bags.

- **Sea anchor.** This is absolutely essential when using the Portland Pudgy as a lifeboat. **You can get a Fiorentino para-anchor from Portland Pudgy, Inc.** The high quality, rugged Fiorentino para-anchor is made expressly for use with the Portland Pudgy. See *Para-Anchor* module.

- **Safety harness.** You can have Portland Pudgy, Inc. install special safety harness attachment points (also used for lifting the Pudgy onto davits). **If you do not have these special attachment points installed, please use strong points in the Pudgy,** such as the through holes in the hull, or the holes in aft and forward seats. (Do NOT use the middle seat as an attachment point; it is removable.) **You must supply safety harness(es)** for you and your crew.

- **Boarding ladder.** You can purchase a boarding ladder/fender from Portland Pudgy, Inc. See *Ladder/Fender* module.

- **Strobe light, EPIRB, and other electrical equipment**. You must supply your own. Portland Pudgy, Inc. can install an electrical system in your Portland Pudgy. The electrical system illuminates the built-in, standard compass, an LED navigation light, and an LED reading light. An outlet lets you run any small devices that work on a 12-volt battery, and it lets you recharge the battery. You can also get an optional solar panel for charging the battery. For more information see *Electrical System* module.
- **Rainwater catchment receptacle. The outside of the exposure canopy's aft section has a rainwater catchment device** ("V" shaped piping with an attached tube and a twist open/twist closed valve that opens inside the boat). **However, you must supply a receptacle for the rainwater.** Use a receptacle you can stow through an access hatch.
- **Tether** for attaching the Pudgy to the mother boat. Please supply your own.
- **Bailing bucket and sponge.** Please supply your own.
- **Reefing lines for sail.** Please supply your own.
- **Personal flotation devices.** Please supply your own.
- **Adaptor for manual pump** to allow oral inflation of tubes. Please supply your own.

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